

I/WE CLAIM:

1. A vending machine comprising:
 - a cabinet frame including top, bottom, side and rear walls that collectively define a central cavity;
 - a plurality of column walls defining a plurality of stack areas for storing columns of product containers to be vended;
 - a door mounted to the cabinet frame for selectively closing the central cavity;
 - a plurality of dispensing units, each of the plurality of dispensing units being adapted to receive product containers from an associated one of the plurality of stack areas;
 - a plurality of vend motors connected to the plurality of dispensing unit, each of the plurality of vend motors including a rotatable output for selectively operating a respective one of the dispensing units to dispense the product containers; and
 - an electronic control unit adapted to control rotation of the output of each of the plurality of vend motors through a desired vend angle, with the desired vend angle being established based on the product container to be dispensed, said electronic control unit including a memory having stored therein various predetermined vend angles corresponding to known product containers, while being programmable to retain supplementary vend angles for additional product containers.
2. The vending machine according to claim 1, wherein the desired vend angle for each of the plurality of vend motors can be individually set.

3. The vending machine according to claim 1, wherein said electronic control unit can selectively operate in a set package mode wherein the desired vend angle for a select one of the plurality of vend motors can be changed.
4. The vending machine according to claim 3, wherein the desired vend angle for each of the plurality of vend motors can be simultaneously adjusted.
5. The vending machine according to claim 1, further comprising: a display for use in programming the electronic control unit.
6. The vending machine according to claim 5, wherein the electronic control unit prompts a user, through the display, for both the desired vend angle and a pre-dispensed setting.
7. The vending machine according to claim 6, wherein each of the desired vend angle and the pre-dispensed setting are stored in the memory.
8. The vending machine according to claim 1, wherein the electronic control unit is operable in various routines, including test, set selection depth and set package type routines.
9. The vending machine according to claim 8, wherein the test routine includes column vend, jog and selection switch tests.

10. A vending machine comprising: ✓
a cabinet frame including top, bottom, side and rear walls that
collectively define a central cavity;
a plurality of column walls defining a plurality of stack areas for
storing columns of product containers to be vended;
a door mounted to the cabinet frame for selectively closing the
central cavity;
a plurality of dispensing units, each of the plurality of dispensing
units being adapted to receive product containers from an associated one
of the plurality of stack areas;
means for shifting the plurality of dispensing units through desired
vend angles for dispensing of product containers from the plurality of
stack areas; and
means for controlling the shifting means, said controlling means
including a memory having stored therein various predetermined vend
angles corresponding to known product containers, while being
programmable to retain supplementary vend angles for additional product
containers.

11. The vending machine according to claim 10, wherein the desired
vend angle for each of the plurality of dispensing units can be
individually set.

12. The vending machine according to claim 11, wherein said
controlling means can selectively operate in a set package mode wherein
the desired vend angle for a select one of the plurality of dispensing units
can be changed.

13. The vending machine according to claim 12, wherein the desired vend angle for each of the plurality of vend motors can be simultaneously adjusted.
14. The vending machine according to claim 10, further comprising: a display for use in programming the controlling means.
15. The vending machine according to claim 14, wherein the controlling means prompts a user, through the display, for both the desired vend angle and a pre-dispensed setting.
16. The vending machine according to claim 15, wherein each of the desired vend angle and the pre-dispensed setting are stored in the memory.
17. The vending machine according to claim 10, wherein the controlling means is operable in various routines, including test, set selection depth and set package type routines.
18. The vending machine according to claim 17, wherein the test routine includes column vend, jog and selection switch tests.
19. A method of operating a vending machine comprising:
operating the vending machine in a normal mode wherein the machine vends product containers based on preprogrammed vend information;

switching operation of the vending machine to a service mode wherein the machine may be programmed with additional vend information;

choosing a program routine from at least two of testing, set selection depth and set package type routines;

inputting additional vend information based on the program routine chosen; and

storing the additional vend information along with the preprogrammed vend information.

20. The method of claim 19, further comprising: individually programming the additional vend information for various stack areas of the vending machine.

21. The method of claim 19, further comprising: simultaneously programming the additional vend information for a plurality of stack areas to the vending machine.

22. The method of claim 19, further comprising:
selecting the testing routine; and
choosing between column vend, jog or selection switch tests.

23. The method of claim 22, further comprising:
selecting the column vend test; and
identifying one of a plurality of stack areas in the vending machine;
and
running a test on said one of the plurality of stack areas to determine proper dispensing from said one of the plurality of stack areas.